UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,737	07/01/2003	David R. Robins	**BA-0342	2570

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EXAMINER
NGUYEN, ALLEN H

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/611,737	ROBINS, DAVID R.
	Examiner	**Art Unit**	
	Allen H. Nguyen	2625	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _10 September 2009_.

2a) ☒ This action is FINAL.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _29-31,36,37 and 42-56_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _29-31,36,37 and 42-56_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _01 July 2003_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _09/15/2009_.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments have been considered but are moot in view of the new

ground(s) of rejection.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.   Claims 29-30, 36-37, 43-45, 47-51, 54-56 are rejected under 35 U.S.C. 102(b) as

being anticipated by Barry et al. (US 5,859,711).

        Regarding claim 36, Barry '711 discloses a system (Figs. 1-15) for printing a

plurality of digital images (Job 352, fig. 12), the system comprising:

        processing means (RIP 350, fig. 12) for determining a subset (Color 358, fig. 12)

of the plurality of digital images (352, fig. 12) which require image processing to meet an

image parameter (multiple pages of images are separate and distinct and have

associated therewith parameters that define the nature of the document as to printing,

col. 14, lines 55-60), the subset including fewer than all of the plurality of digital images

(Job 2, fig. 12);

first image processing means (354, fig. 12) for performing image processing on the digital images in the subset to produce a first plurality of processed images (The black and white job is routed to a first job block 356, col. 14, lines 60-65, fig. 12);

print engine activation means (Job Manager 360, fig. 12) for activating a print engine (Engine 362, fig. 12);

first printing means (364/368, fig. 12) for printing the first plurality of processed images using the print engine (The job would be defined as a single group and would be submitted to the engine, col. 14, lines 1-10).

Regarding claim 37, Barry '711 discloses the system (Figs. 1-15), further comprising:

second image processing means (Virtual Job Router 354, fig. 12) for performing image processing on a second set of images (Job 2 / 358, fig. 12) including fewer than all of a plurality images (Job 352, fig. 12) to produce a second plurality of processed images (Job 2 Pages: 2, 4, 6 Color, fig. 12);

second printing means (Engine B 366, fig. 12) for printing the second plurality of processed images without stopping and reactivating the print engine (i.e., virtual job routing is that a particular page can have the parameters thereof examined after the page has been assembled separate from the initial multi-page print job, and a determination made as to how to handle that particular job. This will allow the job to be routed to the most efficient engine. Therefore, the print engine can run continuously and efficiently; Col. 15, lines 20-25).

Regarding claims 29-30, claims 29-30 are the method claims of device claims 36-37, respectively. Therefore, method claims 29-30 are rejected for the reason given in device claims 36-37.

Regarding claim 47, Barry '711 discloses the system (Figs. 1-15), further comprising: means (419, fig. 14) for receiving a user designation of the image processing to be performed on the <u>digital images in the subset</u> (a multi-page document is input to the system. This document is input from a PC or some type of user, col. 16, lines 1-30, and fig. 14).

Regarding claim 48, Barry '711 discloses the system (Figs. 1-15), further comprising:

means for resizing the first plurality of processed images before printing the first plurality of processed images, wherein the resizing is based on the size of an output medium upon which the first plurality of processed images will be printed (a job parser 412, which is operable to retrieve pages from a memory 414, which pages are basically compressed bit maps. These compressed bit maps, such as to reduce in size, are oriented such that each page defines a bit mapped image, with each page having associated therewith information regarding the **parameters** of the page with respect to printing; see col. 16, lines 60-68 and col. 17, lines 1-5, fig. 14).

Regarding claim 49, Barry '711 discloses the system (Figs. 1-15), wherein the

<u>first image processing</u> means (354, fig. 12) performs the image processing such that the

time required to print the first plurality of processed images (Job 1 of B and W images,

fig. 12) is less than the time required to print <u>the digital images in the subset </u>(Job 2 of

Color images, fig. 12), <u>whereby the time required to print the first plurality of processed</u>

<u>images </u>(Job 1, fig. 12) <u>and the digital images </u>(Job 2, fig. 12) <u>from the plurality of digital</u>

<u>images </u>(Job 352, fig. 12) <u>not in the subset is less than the time required to print the</u>

<u>plurality of digital images </u>(color image with higher resolution pages take longer to print,

col. 13, lines 50-60, fig. 12).

Regarding claim 50, Barry '711 discloses a computer-readable storage medium

(Workstation 10, fig. 1) comprising instructions (Processor 14 / Software RIP 350, figs.

1, 12) for printing a plurality of digital images (Job 352, fig. 12), the instructions

comprising instructions for:

determining a subset of the plurality of digital images (Job 1, fig. 12) which

<u>require image processing </u>(col. 17, lines 30-40) <u>to meet a defined image parameter</u>

(multiple pages of images are separate and distinct and have associated therewith

parameters that define the nature of the document as to printing, col. 14, lines 55-60)<u>,</u>

<u>the subset including fewer than all of the plurality of digital images </u>(Job 1 of pages 1, 3,

5 Black and White, fig. 12);

performing image processing (col. 17, lines 30-40) on <u>the digital images in the</u> <u>subset</u> to produce a first plurality of processed images (The black and white job is routed to a first job block 356, col. 14, lines 60-65, fig. 12);

activating a print engine (Job manager 360 will route the black and white job to a first engine 362, col. 14, lines 60-67, fig. 12);

printing the first plurality of processed images using the print engine (Job 1 of B and W images, fig. 12).

Regarding claim 51, Barry '711 discloses the computer-readable storage medium (Workstation 10, fig. 1), the instructions (Processor 14 / Software RIP 350, figs. 1, 12) further comprising instructions for:

performing image processing (col. 17, lines 30-40) on a second set of images (Job 2, fig. 12) including fewer than all of the plurality of images to produce a second plurality of processed images (Job 2 of pages 2, 4, 6 color images);

printing the second plurality of processed images without stopping and reactivating the print engine (i.e., virtual job routing is that a particular page can have the parameters thereof examined after the page has been assembled separate from the initial multi-page print job, and a determination made as to how to handle that particular job. This will allow the job to be routed to the most efficient engine. Therefore, the print engine can run continuously and efficiently; Col. 15, lines 20-25).

Regarding claim 54, Barry '711 discloses the computer-readable storage medium (Workstation 10, fig. 1), wherein the image processing (col. 17, lines 30-40) performed on the first set of images is designated by a user (a multi-page document is input to the system. This document is input from a PC or some type of user, col. 16, lines 1-30, and fig. 14).

Regarding claim 55, Barry '711 discloses the computer-readable storage medium (Workstation 10, fig. 1, the instructions (Processor 14 / Software RIP 350, figs. 1, 12) further comprising instructions for:

resizing the first plurality of processed images before printing the first plurality of processed images, wherein the resizing is based on the size of an output medium upon which the first plurality of processed images will be printed (a job parser 412, which is operable to retrieve pages from a memory 414, which pages are basically compressed bit maps. These compressed bit maps, such as to reduce in size, are oriented such that each page defines a bit mapped image, with each page having associated therewith information regarding the **parameters** of the page with respect to printing; see col. 16, lines 60-68 and col. 17, lines 1-5, fig. 14).

Regarding claim 56, Barry '711 discloses the computer-readable storage medium (Workstation 10, fig. 1, wherein the instructions (Processor 14 / Software RIP 350, figs. 1, 12) for performing image processing (col. 17, lines 30-40) comprises instructions for performing image processing such that the time required to print the plurality of <u>digital</u>

images (Job 1 of B and W images, fig. 12) is <u>less than the time required to print the</u>

<u>digital images in the subset</u> (Job 2 of Color images, fig. 12)<u>, whereby the time required</u>

<u>to print the first plurality of processed images</u> (Job 1, fig. 12) <u>and the digital images</u> (Job

2, fig. 12) <u>from the plurality of digital images</u> (Job 352, fig. 12) <u>not in the subset is less</u>

<u>than the time required to print the plurality of digital images</u> (color image with higher

resolution pages take longer to print, col. 13, lines 50-60, fig. 12).

Regarding claims 43-45, claims 43-45 are the method claims of device claims

54-56, respectively. Therefore, method claims 43-45 are rejected for the reason given

in device claims 54-56.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 42, 46, 53 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Barry et al. (US 5,859,711) in view of Kito (US 6,628,899).

Regarding claim 46, Barry '711 does not explicitly show the system, wherein the

means for performing image processing comprises means for performing at least one of

red-eye reduction, contrast correction, or brightness correction.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Kito '899. In particular, Kito '899 teaches the system (Image Photographing system 10, figs. 1A-1B), wherein the means (Image Processing system 26, fig. 1B) for performing image processing comprises means (38, fig. 6) for performing at least one of red-eye reduction, contrast correction, or brightness correction (i.e., color balance adjustment, contrast correction, brightness correction, saturation correction, sharpness processing, red-eye correction when photographing is carried out; see col. 13, lines 40-50).

In view of the above, having the system of Barry and then given the well-established teaching of Kito, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Barry as taught by Kito to include: the system, wherein the means for performing image processing comprises means for performing at least one of red-eye reduction, contrast correction, or brightness correction, since the modification would ensure the system capable of effective correcting conditions so that high-quality images can be output in a consistent manner.

Regarding claim 53, Barry '711 does not show the computer-readable storage medium, wherein the image processing comprises at least one of red-eye reduction, contrast correction, or brightness correction.

However, the above-mentioned claimed limitations are well known in the art as evidenced by Kito '899. In particular, Kito '899 teaches the computer-readable storage

medium (24a, fig. 1B), wherein the image processing (Image Processing system 26, fig.

1B) comprises at least one of red-eye reduction, contrast correction, or brightness

correction (i.e., color balance adjustment, contrast correction, brightness correction,

saturation correction, sharpness processing, red-eye correction when photographing is

carried out; see col. 13, lines 40-50).

     In view of the above, having the system of Barry and then given the well-

established teaching of Kito, it would have been obvious to one having ordinary skill in

the art at the time of the invention was made to modify the system of Barry as taught by

Kito to include: the computer-readable storage medium, wherein the image processing

comprises at least one of red-eye reduction, contrast correction, or brightness

correction, since the modification would ensure the system capable of effective

correcting conditions so that high-quality images can be output in a consistent manner.

     Regarding claim 42, claim 42 is the method claim of device claim 53. Therefore,

method claim 42 is rejected for the reason given in device claim 53.

6.   Claims 31, 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Barry et al. (US 5,859,711) in view of Nagasaka (US 5,333,246).

     Regarding claim 52, Barry '711 does not explicitly show the computer-readable

storage medium, wherein said performing image processing on the <u>digital images in the

subset</u> is performed by a print client, wherein said activating a print engine and said

printing the first plurality of processed images using the print engine are performed by a

print server, and wherein the instructions further comprise instructions for:

the print client transmitting the first plurality of processed images to the server over a

communications bus.

However, the above-mentioned claimed limitations are well known in the art as

evidenced by Nagasaka '246. In particular, Nagasaka '246 teaches the computer-

readable storage medium (Device driver 3, memory unit 204, fig. 3),

wherein said performing image processing on the <u>digital images in the subset</u> is

performed by a print client (i.e., the user's printing request is operated by the user

through the computer 6a / client 6a for the first set of images; see col. 6, lines 40-68 and

col. 7, lines 1-10, fig. 2),

wherein said activating a print engine (col. 12, lines 9-45, figs. 5, 10 and it should

be noted that print engine activation means for activating a print engine is inherent in

the print engine) and said printing the first plurality of processed images using the print

engine are performed by a print server (i.e., the client process 210 executes a printer

control code addition processing 221 for the plurality of picture element data in

accordance with the physical specifications of the printer 21/ printing unit 135; see col.

7, lines 35-50, figs. 2, 34), and wherein the instructions further comprise instructions

(The generated printing request is received by the software 132 via the network, col. 30,

lines 10-50, fig. 34) for:

the print client (Computer 6a, fig. 34) transmitting the first plurality of processed

images (a printing request is generated from any application software operative in the

computer 6a, col. 30, lines 5-10) to the server (Computer 133, fig. 34) over a
communications bus (7, fig. 34).

In view of the above, having the system of Barry and then given the well-
established teaching of Nagasaka, it would have been obvious to one having ordinary
skill in the art at the time of the invention was made to modify the system of Barry as
taught by Nagasaka to include: the computer-readable storage medium, wherein said
performing image processing on the digital images in the subset is performed by a print
client, wherein said activating a print engine and said printing the first plurality of
processed images using the print engine are performed by a print server, and wherein
the instructions further comprise instructions for: the print client transmitting the first
plurality of processed images to the server over a communications bus, since Nagasaka
stated in col. 1, lines 15-20 that such a modification would ensure the printing operation,
which can be applied to a system in which a plurality of information processing units are
connected in a network fashion.

Regarding claim 31, claim 31 is the method claim of device claim 52. Therefore,
method claim 31 is rejected for the reason given in device claim 52.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to
applicant's disclosure.

Chui et al. (US 6,343,155) discloses digital images can be processed a portion at a time, instead of all at once, thereby reducing memory requirements.

Gaglione et al. (US 6,069,637) discloses the time period can be significantly reduced for pre-stored digital image.

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen H. Nguyen whose telephone number is (571)270-1229. The examiner can normally be reached on 9:00 AM-6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KING Y. POON can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/
Supervisory Patent Examiner, Art Unit 2625

/Allen H. Nguyen/
Examiner, Art Unit 2625